

ABSTRACT OF THE DISCLOSURE

A method of embedding data in material comprises the steps of:
embedding data in original material to produce data embedded material;
removing the watermark from the data embedded material to produce
5 recovered material;
comparing the original and recovered material to determine the differences and
locations of differences therebetween; and
storing the said locations and corrections which correct the said differences.
A method of removing the data embedded in the material, comprises the steps
10 of:
removing the data from the material to produce recovered material;
deriving the said corrections and locations from the said store; and
using the corrections to correct the recovered material at the said locations.
A method of embedding data in material, preferably comprises the steps of:
15 producing transform coefficients C_i representing a spatial frequency transform
of the material, and
combining the coefficients C_i with the data bits R_i to produce a modified
coefficient C_i' where
$$C_i' = C_i + \alpha_i R_i$$

20 the method further comprising determining α_i for each unmodified coefficient
 C_i as a function $F\{C_n\}_i$ of a predetermined set $\{C_n\}_i$ of transform coefficients C_n
which set excludes the coefficient C_i .

[Figures 3A, B and 4]